

LITHOGRAPHIC PRINTER

A student who has completed Job Corps' Lithographic Printer program is trained and ready to work in this field. To complete a trade, the student must learn the academic and vocational skills required for graduation. Job Corps students also learn good work and personal habits, preparing them for life after Job Corps. To complete the Lithographic Printer program, a student must master skills in the following categories:

Offset Duplicator Apprentice

SHOP SAFETY

Identify the basic hand tools used in the shop; match types of fire extinguishers with their characteristics; describe the steps to be taken in accident situations; describe EPA standards for disposal of chemicals; identify and explain Material Safety Data Sheet (MSDS).

BINDING, FINISHING AND PAPER CUTTING

List and define terms related to binding and finishing; list binding techniques; list major styles of folding set-up and perform fold; list processes associated with finishing activities; define pad, drill and stitch paper stock; list terms related to paper stock; demonstrate the ability to set up and operate a collator; determine grain direction; define base sizes and base weights; identify types of fine paper; list commercial envelopes by dimensions given; state the formula for cutting paper stock; state the formula for determining the amount of waste in a print job; make a combination cut using a stock cutting formula; draw a cutting design.

PROCESS CAMERA

Identify and use tools for layout and measurement (line gauge, proportionate scale); identify and use process camera; distinguish between emulsion/base; set up a process camera and determine basic exposure; calculate exposure of a halftone; expose and develop a halftone negative.

STRIPPING AND PLATEMAKING

Introduction to stripping: lay out an unruled flat; strip an unruled flat; strip a ruled flat; identify types of plates used and stripping requirements in shops; stripping techniques: name two types of combination printing; identify stripping-register marks and pins; strip for step-and-repeat; combine line and halftone work; strip for combination or surprinting; strip complementary flats for multicolor printing; strip for work and turn, tumble system; strip signature flats for multipage or book printing imposition.

INTRODUCTION TO PLATEMAKING

Maintain a plate processor; identify plate-exposure devices; develop a plate using a two-step method; determine correct plate exposure.

PLATEMAKING PROCESS

Determine correct exposure and process an additive plate; determine correct exposure and process a subtractive plate; make corrections on plate; expose for a screen tint; make plates for a two-color job; expose a photo-direct plate; identify a pin register system.

PRESS

Basic off-set press systems: identify the components and set up feeder assembly of a typical offset press; identify the components of the cylinder system of a typical offset press; identify the components of the inking system and dampening system of a typical offset press; test the ink-water principle of an offset plate; state the basic theory of offset printing and describe types of printing; operate an offset press from set-up of systems through printed sheet delivery; wash up an offset press; name control functions of an offset press operator; change blanket on press; adjust dampening and ink-form parallel to plate.

PREVENTIVE MAINTENANCE

Design a preventive-maintenance schedule in chart form; identify press problems by observing given samples of printed sheets; list conditions associated with paper stock that may create problems for the press operator; clean the press work station; deglaze press rollers and blanket; degrease plate and impression cylinders; change the dampening-roller covers; perform the daily, weekly and monthly lubrication routine.

COST AWARENESS

List terms related to cost awareness during production; distinguish cost-awareness factors for school shops and commercial shops.

SHOP ORGANIZATION

Complete job tickets; describe the layout of a typical printing plant.

Press Operator Apprentice

PRESS/BINDERY OPERATION

Ability to understand and utilize information from a work order to produce a final product; demonstrate the ability to independently print the following: #9/10 two-color envelope, booklet or catalog envelope; demonstrate the ability to independently print a two- or three-color business card; demonstrate the ability to independently develop a tri-fold multicolored brochure; demonstrate the ability to independently develop letterhead; demonstrate the ability to independently produce a multicolor using register marks; demonstrate the ability to perform several collating jobs utilizing information from work orders.

PRESSROOM CHEMISTRY

Demonstrate the ability to mix ink to a specific PMS color; distinguish between types of emulsification; state general rules for care and storage of inks; name methods of measuring pH; test solutions for pH.

COMPUTER SKILLS AND PROCEDURES

Identify and describe the function of basic computer components; demonstrate keyboard proficiency, correctly start and shut down the computer; use the basic features of the system's operating system; use word processing software to create and print documents; use presentation graphics software.



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